

(resistant to three or more at a time) has been decreasing gradually (30% in 2002, 13% in 2003, 5% in 2004 and 2% each in 2005 and 2006) in Nepal.

Conclusions: Although the number of MDR *Salmonella* has been decreasing in Nepal, the total number of *Salmonella* isolates has been increasing. The increasing trend of *S. paratyphi* A with high resistance rate of Nalidixic acid can be regarded as a worrisome situation and may reflect the emergence of fluoroquinolone resistance. Continued surveillance and inclusion of appropriate antimicrobials in the routine susceptibility testing for *Salmonella* are necessary in Nepal.

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67.001

A Comparison Research of Hepatitis B Virus Large Surface Protein with HBV DNA Detecting

Z.L. Wu*, X.D. Lu, X.Q. Zhong, L.F. Ling, G. Lin, G.C. Xiao

Department of Clinical Laboratory, The Fourth people's hospital of ShenZhen, ShenZhen, China

Background: The hepatitis B virus (HBV) is an enveloped DNA virus with an icosahedral capsid replicating via reverse transcription. The crystal structure of the capsid is known. The viral envelope contains three different coterminal proteins (S, M, and L proteins) spanning the membrane several times. Hepatitis B virus large surface protein 'LHBs' has the unusual property of accumulating in a particulate form within a preGolgi compartment, leading to marked proliferation of intracellular membranes

Objective: The aim of this study was to investigate the clinical value of LHBs used for diagnosis of the clinical hepatitis B patient and relativity with replication of hepatitis B virus.

Methods: A total of 600 HBsAg positive patients in The Fourth people's hospital of Shenzhen between April-December 2006 were included to the study. The patients were classified into two groups according to their serological patterns (Group 1: HBeAg positive 300 cases; Group 2: HBeAg negative 300 cases). The age and gender distributions of the groups were similar. HBV serological markers and LHBs have been detected by Enzyme Linked Immunosorbent Assay (ELISA), and viral load (HBV-DNA) were investigated by real-time polymerase chain reaction (PCR)

Results: No significant difference of positive rate was observed between HBV DNA 76.17% (457/600) and LHBs 77.33% (464/600) ($\chi^2 = 0.696$, $P > 0.05$) in 600 HBsAg-positive serum samples; Positive rate of HBV DNA and LHBs were 95.0 (285/300) and 96.0 (288/300) in HBeAg positive samples and were 57.33 (172/300) and 58.67 (176/300) in HBeAg negative samples ($\chi^2 0.725$, $P > 0.05$; $\chi^2 0.253$, $P > 0.05$); Serum LHBs levels were correlated with the serum HBV DNA copies ($r = 0.948$).

Conclusion: The results demonstrated that there is a perfect correlation between the copies of HBV-DNA and the levels of LHBs, and LHBs expression can reflect the replication of HBV.

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Trial of Lamivudine in Inactive HBsAg Carriers with Persistent Hepatitis B Core IgM Antibody

H. Ali

College of Medicine, University of Dohuk, Dohuk, Kurdistan Region, Iraq

Objective: The persistence of Anti-HBc IgM among inactive HBsAg carriers may be with hidden dangers and forecasts the existence of liver damage. A trial of lamivudine in such carriers was carried out for the first time in this study.

Patients and Methods: A total of 62 Inactive HBsAg carriers (age range; 25–45 years) with persistence of anti-HBc IgM were randomized to receive either 100 mg lamivudine (32/62) or placebo (30/60) daily for 6 months. The studied carriers were regular attendees of the Virology Center in Mosul, North Iraq for follow-up. Enzyme-linked immunosorbent assay techniques were performed to detect the different markers of HBV infection

Results: Among the lamivudine group, anti-HBc IgM sero-clearance rate was 81.3% and HBsAg seroconversion rate was 9.4% compared to 6.3% and 3.3% among placebo group. Number of adverse clinical events were observed, but were of mild nature and tolerable by the participants who completed the study

Conclusions: The trial of lamivudine in this group of inactive HBsAg carrier state cases proved to be safe and efficacious.

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Therapy of Chronic Hepatitis C in Intravenous Drug Users - Efficiency and Problems

M. Bozic*, K. Bojovic, M. Djonin-Nenezic, I. Milosevic

Institute for tropical and infectious diseases, Belgrade, Serbia

Background: HCV infection is very common in intravenous drug users (IDUs) and it has more often progression in chronic hepatitis. In spite of that, just small percent of these patients with chronic hepatitis C (CHC) is treated with antiviral therapy. Interruption of therapy was common in IDUs due to low compliance and adverse reactions, usually psychiatric.

Methods: This is a 5-year retrospective analysis of 37 IDUs with CHC who were treated in Institute for Infectious and Tropical Diseases, Clinical Center of Serbia in Belgrade. HCV RNA and HCV genotype (G) were determined by PCR. Liver biopsy was performed in 34 (91,89%) patients. All 37 patients were treated with pegylated interferon alpha 2a + Ribavirin according to standard protocols

Results: There were 37 IDUs with CHC in the age from 17–54 years. They abused heroin iv for 1–21 years. HCV infection was diagnosed 1–18 years before treatment. All patients were HBsAg and anti-HIV negative. 18 patients (48,64%) also consumed alcohol. AST level ranged from 35–248 IU/L. Liver biopsy showed cirrhosis in 5 (14,7%) patients and fibrosis in 29 (85,3%) patients. Steatosis was confirmed in 9 (24,32%) patients. Viral load ranged from

100.000 to 33.750.000 HCV RNA copies/mL. HCV genotype were found: G1 in 19, G2 in 2, G3 in 9, G4 in 2 and mixed G in 5 patients. Sustained viral response (SVR) was achieved in 21/27 (77,77%), relapse (R) was found in 4 (14,81%) patients and 2 patients (7,40%) were nonresponders (NR). Therapy was definitely interrupted in only one patient. We had to stop treatment temporally and to reduce dose of antiviral drugs in 10 (27%) patients. Adverse effects of therapy were found in 30 (81,1%) patients

Conclusions: Treatment of CHC in IDUs was successful and it shows that more IDUs should be treated with antiviral therapy.

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Nosocomial Chronic Viral Hepatitis

F. Sirmatel^{1,*}, H. Peksel², B. Gursoy³

¹ Abant İzzet Baysal University, Bolu, Turkey

² Kiziltepe Government Hospital, Mardin, Turkey

³ Medical Faculty of Harran University, Sanliurfa, Turkey

Background: It is known that the nosocomial viral hepatitis agents Hepatitis B (HBV), Hepatitis D (HDV), and Hepatitis C (HCV) viruses are transmitted by the close contact and invasive procedures. The nosocomial viral hepatitis (NVH) transmission cases were followed for last seven years period.

Materials and Methods: Between 1999 to 2006; 28 NVH cases were followed for 12–72 months at the Research and Application Hospital that is committed to the University. It was taken the notice of the negative chronic viral hepatitis markers and normal value of transaminases of the cases. The cases that were considered of transmission of HBV, HCV, and HDV at the outside of the hospital were excluded from the study. All the cases were evaluated for the acute viral hepatitis markers for HBV, HCV and HDV, after 15th and 90th day of the suspected transmission. The cases who were known that transmission of HBV, HDV and HCV was occurred were re-evaluated for the medical status of before transmission and present.

Findings and Results: There were totally 28 cases (eighteen were man, ten were women) ages between 20 to 67 were suspected of the transmission of nosocomial viral hepatitis. Six of them were doctors, six of them were nurses, four of them were medical staff and twenty were patients that were hospitalized for another medical reason. It was determined that all the hospital staff had their viral hepatitis agent transmission because of needle-sticks and ten of the patients had their transmission because of endoscopic and invasive procedures. From these 28 cases: 5 cases (four medical staff, and one patient) exposed HBV, previously known 4 chronic hepatitis B patients exposed nosocomial HDV transmission and 19 cases (6 doctors, 6 nurses, 7 patients) exposed nosocomial HCV transmission. At the end of the observation; from the 4 medical staff and one patient who didn't get any prophylaxis two of them got Anti-HBs seroconversion, but the other two staffs got their diseases chronically HBV carriers. Four patients who were previously known that were chronic viral hepatitis B, acquired their HDV exposure and transmission because of the endoscopic procedures and superinfection were occurred at

all four of them. These four HDV superinfection patients were given interferon treatment (10 million IU/3 times a week) for one year. After the treatment their transaminases decreased to the normal values and HDV-RNA of all four patients were negative. The two of four nosocomially HDV exposed patients had Anti-HBs seroconversion and all four patients had negative Anti-HDV tests. After one year, the two patients who had Anti-HBs seroconversion and got HBsAg positivity again. HCV exposed 12 items (6 doctors, 6 nurses) got nor transaminase elevation neither Anti-HCV or HCV-RNA positivity. From the HCV exposed 7 patients; the two of them got spontaneous clearance, five of them got acute HCV infection and treated for one year. But one male patient with acute HCV infection who didn't tolerate the treatment got a decomposed liver disease after two years. At one acute HCV infected female and spontaneously cleared patient got a flare of HCV infection during an immunosuppressive treatment because of her temporal arteritis. The other four patients who had received pegylated interferon treatment for one year got sustained response to the treatment.

Conclusions: As a result from five nosocomial HBV infections two had a chronic hepatitis B infection. From 19 nosocomial HCV infection there was one chronic infection. From four nosocomial HDV infection were treated successfully. The viral hepatitis agents causes chronic illness at immunocompromised patients. These patients must be evaluated for prophylaxis after a HBV exposure. Although HCV is still an important viral pathogen for nosocomial transmission; it makes chronic viral hepatitis that has long progression time period at healthy people.

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Sexual Transmission of Hepatitis C Virus Among Female Sex Workers in India

P. Barua*, N. Laskar, G.K. Medhi, B. Apum, J. Mahanta

Regional Medical Research Centre, Indian Council of Medical Research, Dibrugarh, India

Background: Although several blood borne viral infections are transmitted sexually, yet acquiring hepatitis C virus (HCV) infection by this route is debated. Risk of chronicity with HCV infection is high and increases co-morbidity when present along with HIV in high risk groups.

Methods: We recruited 426 female sex workers (FSWs) who consented by Respondent Driven Sampling (RDS) technique in a Linked Anonymous strategy. The respondents provided behavioral data and biological samples. Serum samples were tested for HIV and HCV by ELISA. To assess the associated risk factors, samples were also tested for HSV-2 and syphilis. Urine samples were tested for gonorrhea and chlamydial infections by Aptima Gen probe. Data were analyzed using SPSS 10.0 statistical software.

Results: Of the 426 FSWs enrolled, the overall anti-HCV antibody positivity was 9.6%; 45.9% among those who were IDUs and in 7.5% with no history of injecting drug abuse, blood transfusion or tattooing. HIV-1 antibody was positive in 13.6% while 2.3% had detectable HBsAg. HIV-HCV co-infection was present in 36.2%. Among the STIs, HCV was significantly associated with HSV-2 in 15.5% (OR 2.9, 95%